

Claims

1. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising the steps of
- 5
- i) contacting a test compound with a AdipoR1 polypeptide,
- 10
- ii) detect binding of said test compound to said AdipoR1 polypeptide.
2. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising the steps of
- 15
- i) determining the activity of a AdipoR1 polypeptide at a certain concentration of a test compound or in the absence of said test compound,
- 20
- ii) determining the activity of said polypeptide at a different concentration of said test compound.
- 25
3. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising the steps of
- 30

- 125 -

- i) determining the activity of a AdipoR1 polypeptide at a certain concentration of a test compound,
 - ii) determining the activity of a AdipoR1 polypeptide at the presence of a compound known to be a regulator of a AdipoR1 polypeptide.
4. The method of any of claims 1 to 3, wherein the step of contacting is in or at the surface of a cell.
5. The method of any of claims 1 to 3, wherein the cell is in vitro.
6. The method of any of claims 1 to 3, wherein the step of contacting is in a cell-free system.
7. The method of any of claims 1 to 3, wherein the polypeptide is coupled to a detectable label.
8. The method of any of claims 1 to 3, wherein the compound is coupled to a detectable label.
9. The method of any of claims 1 to 3, wherein the test compound displaces a ligand which is first bound to the polypeptide.
10. The method of any of claims 1 to 3, wherein the polypeptide is attached to a solid support.
11. The method of any of claims 1 to 3, wherein the compound is attached to a solid support.
12. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular

diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising the steps of

- 5 i) contacting a test compound with a AdipoR1 polynucleotide,
- ii) detect binding of said test compound to said AdipoR1 polynucleotide.
13. The method of claim 12 wherein the nucleic acid molecule is RNA.
- 10 14. The method of claim 12 wherein the contacting step is in or at the surface of a cell.
15. The method of claim 12 wherein the contacting step is in a cell-free system.
- 15 16. The method of claim 12 wherein polynucleotide is coupled to a detectable label.
17. The method of claim 12 wherein the test compound is coupled to a detectable label.
- 20 18. A method of diagnosing a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising the steps of
- 25 i) determining the amount of a AdipoR1 polynucleotide in a sample taken from said mammal,

- ii) determining the amount of AdipoR1 polynucleotide in healthy and/or diseased mammals.
19. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising a therapeutic agent which binds to a AdipoR1 polypeptide.
20. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising a therapeutic agent which regulates the activity of a AdipoR1 polypeptide.
21. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising a therapeutic agent which regulates the activity of a AdipoR1 polypeptide, wherein said therapeutic agent is
- i) a small molecule,
 - ii) an RNA molecule,
 - iii) an antisense oligonucleotide,
 - iv) a polypeptide,
 - v) an antibody, or
 - vi) a ribozyme.

22. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising a AdipoR1 polynucleotide.
23. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising a AdipoR1 polypeptide.
24. Use of regulators of a AdipoR1 for the preparation of a pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal.
25. Method for the preparation of a pharmaceutical composition useful for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal comprising the steps of
- i) identifying a regulator of AdipoR1,
 - ii) determining whether said regulator ameliorates the symptoms of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer,

- 129 -

hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases in a mammal; and

iii) combining of said regulator with an acceptable pharmaceutical carrier.

5

26. Use of a regulator of AdipoR1 for the regulation of AdipoR1 activity in a mammal having a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases.
- 10